

International Livestock Research Institute

National food safety architecture in Kenya


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Abbreviations and acronyms

Cap	Chapter
FAO	Food and Agriculture Organization of the United Nations
USD	United States dollars
WHO	World Health Organization

Executive summary

Food safety is a public good. It is a global human right to access safe food. It is the responsibility of the government to ensure access to safer foods. In order to achieve this, the Kenya government has put in place a framework to ensure food safety. The framework comprises policies, legislations, inspection services, laboratories and information, education, communication and training. This publication has reviewed the relevant policies, legislations, laboratories and information, education, communication and training situation in Kenya which is meant to ensure food safety. This architecture follows the recommendation of the Food and Agriculture Organization of the United Nations (FAO).

The national food safety control system adopted by Kenya is multi-agency rather than a single-agency approach. This approach involves many government ministries and agencies, and all have mandates on some aspects of food safety based on the legislations that created them.

The multi-agency approach adopted by the country lacks an overarching coordination mechanism and this has resulted in duplicity of mandates, inaction by the relevant regulatory agencies and multiple taxation in form of levies and cess.

The review observes that establishment of a coordination mechanism for all these well-intended legislations and actors will foster the achievement of the government's mandate of guaranteeing food safety.

Introduction

Food safety is the certainty that food when eaten as intended will not result in any harm. The harm may be due to microbial, chemical or physical hazards. Food safety is important for the attainment of the United Nations Sustainable Development Goals; food safety affects seven of these goals directly or indirectly. The World Health Organization (WHO) (2015) estimates that foodborne diseases globally are responsible for over 600 million cases, 419,000 deaths and 33 million disability-adjusted life years. Low- and middle-income countries bear the largest burden of foodborne diseases. Africa's loss is estimated to be 16.7 billion United States dollars (USD). Kenya's loss is USD 1 billion annually mainly due to loss of productivity and cost of treatment of foodborne disease (Jaffee et al. 2018).

Globally, food safety control systems are employed to manage food safety in external and internal markets. Food safety control systems are based on guidelines of the Codex Alimentarius Commission and their main objectives are to protect the health of consumers and encourage fair trade (FAO/WHO 2003). The Codex Alimentarius Commission achieves this through the development of international standards, guidelines and codes of practice. National food safety control systems have several components: food control management responsible for policies and operational coordination; food laws and regulations; inspection services; laboratory services for food monitoring and epidemiological data gathering; and information, education, communication and training (FAO 2000).

Food safety in low- and middle-income countries is hampered by weak policies and laws, duplication of mandates between multitudes of agencies, and duplicate licences and fees which make enforcement of and compliance with the standards difficult. In Kenya, food safety laws are scattered in 23 different agencies. The Kenyan population, currently at 46 million, is projected to reach 96 million in 2050. The population increase will be accompanied by an increase in urban population to about 46 million with the majority (23 million) living in unplanned settlements. Food supply to the burgeoning cities and urban centres will need to be well planned in terms of quantities and safety, considering the many actors in the value chains. Guaranteeing food safety in the complex food systems will not be an easy activity.

Kenya's food marketing systems can be stratified into three:

- well-regulated system for products destined for export with traceability and safety guarantees;
- internal supermarket chains that source produce from internal suppliers with certain observance of food safety regulations; and
- informal (domestic) markets where safety regulations are least enforced and where majority of the population buy their food.

Producers are primarily responsible for ensuring food safety. However, food safety is a public good and the government should take the lead. Although governments ensure food safety through enactment of sound policies, laws and regulations, the weakest link in Kenya has been the enforcement of the laws and regulations. This review will focus on assessing the various elements of Kenya's national food safety control system.

Methodology

The published policies with links to food safety were reviewed, capturing the general purpose of the policies and the areas of food safety they address. Existing laws and regulations were accessed from the [National Council for Law Reporting \(Kenya Law\) website](#); those with focus on food safety were retrieved and reviewed. The data captured included the ministry involved, the implementing agency, purpose of the law, sections of the law that address powers of the implementing agency, delegated powers and to whom, and powers of inspection, seizure, disposal of non-compliant products. Websites of food laboratories in the country were also accessed and relevant data extracted including food safety tests, value chains involved, proficiency testing and accreditation status.

Food safety policies

National Food and Nutrition Security Policy (2011)

Food and nutrition security is defined as a situation where all people at all times have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life. One of the major objectives of the policy is to increase the quantity and quality of food available and make it accessible and affordable to all Kenyans at all times.

On food availability and access, the government commits to ensuring that every Kenyan is free from hunger, has adequate supply of food that is of acceptable quality and always has uninterrupted supply of clean and safe water (in adequate quantities). Acceptable quality is assumed to encompass safety and nutritional requirements.

On storage and agro-processing, the government will initiate measures aimed at addressing post-harvest losses and food quality and safety, including aflatoxin contamination. The policy objectives are to promote and support safe and effective storage of foodstuffs by the private sector at national, county, community and household levels; enhance the capacity of the institutions involved in establishment of standards and monitoring of quality; and promote safe, small-scale rural and home processing and preservation of various foods, including livestock and fishery products, grains and produce.

There is specific mention of food safety. It indicates that the government will ensure availability of safe and high-quality food to all Kenyans at all times by creating public awareness and setting and enforcing appropriate guidelines, codes of practice, standards and a regulatory framework. To improve food safety and quality control within the context of the policy, the government will undertake a number of actions including (1) promotion of safe practices in food production (crops, livestock and fisheries), (2) review and harmonization of the regulatory and institutional framework to improve guidelines, coordination and enforcement, (3) promotion of proper storage and handling to control outbreaks of food-related diseases, (4) addressing the range of urban food safety and quality control by formalizing and regulating producers and vendors, including safe water and sanitation, (5) provision of guidelines on the production and use of genetically modified and bio-fortified products, (6) promotion of public-private partnerships for improved food safety and quality control and (7) development of guidelines, codes of practice and standards that relate to food, food products and nutrition services. On information, education and communication technologies, the government will develop and implement nutrition and food safety awareness campaigns using appropriate media.

National Food Safety Policy (2013)

The Government of Kenya recognizes that access to safe food is a right enshrined in the Constitution of Kenya (Articles 43 and 46) and that safe food is central to public health and poverty reduction and contributes towards sustainable development.

The objectives of this policy are to (1) update food legislation in tandem with food safety requirements, (2) establish a database of food safety issues to improve information, education and communication, (3) strengthen systems to ensure traceability from farm to fork, (4) strengthen human capacity and laboratory infrastructure to manage food safety, (5) provide mechanisms to enhance Kenya's risk analysis capacity, (6) establish systems to mitigate emerging and re-emerging food safety challenges, (7) strengthen capacity for inspection, validation certification and self-assessment, (8) strengthen institutions to facilitate public-private partnerships in food safety and (9) strengthen and increase coordination, enforcement and functioning of the existing food safety control system. A detailed description of the policy components is given in Table 1.

Table 1: Components of the National Food Safety Policy (2013)

Component	Policy description
Regulatory framework	Establish a national food safety law to coordinate the various agencies involved in food safety.
Information, education and communication	Establish a national database of food safety. Capacity building should include skills on food safety. Integrate food safety into the national curricula.
Traceability	Maintain an inventory of food safety laboratories, establish an adequate number and type of accredited and approved laboratories, maintain a budgetary allocation for food safety, strengthen capacity to undertake risk analysis and establish a cadre of scientists to interpret scientific data and assessments.
Emerging and re-emerging food safety concerns	Formally recognize, regularize and develop guidelines for street-vended, convenient and ready-to-eat foods. Strengthen capacity to carry out surveillance of emerging and re-emerging foodborne diseases.
Institutional framework, mandates and capacities	Establish a National Food Safety Authority and an integrated food safety control system to strengthen institutional coordination of food safety control.

National Dairy Development Policy (Sessional Paper 5 of 2013)

This policy covers production, marketing, quality control, standards, consumer safety, consumption and promotion of dairy products in Kenya. The goal of the policy is to improve the livelihoods of actors in the dairy sector in line with the Sustainable Development Goals and Vision 2030. Specific to food safety, the policy will contribute to national food security, transform the industry into an exporter of dairy animals and products and re-orient milk processing towards long-life dairy products. The policy addresses the challenges and shortcomings arising from the liberalization policies of the 1990s.

The policy recognizes that animal diseases hinder the development of the dairy industry and pose a risk of transmission of zoonotic diseases to humans through milk. Efficient and reliable animal health services are crucial to a vibrant dairy industry. The government commits to strengthening the veterinary department to enable it to adequately deal with epizootic diseases in addition to carrying out regulatory roles.

The policy mentions enforcement of feed quality and safety by building capacity of producers in collaboration with the Kenya Bureau of Standards. The government will also introduce legislation to strengthen the monitoring of feed quality at the retail level.

On dairy research and development, the government is expected to come up with a national body, the Kenya Livestock Research Institute, to lead livestock research. The organization will comprise dairy research centres that will give priority to dairy production, marketing, product development, milk packaging, dairy standards and safety.

The government was also to establish, revive and strengthen milk marketing cooperative societies and producer/trader associations, and facilitate the setting up of rural milk collection centres. The policy recognizes that most milk in the country is rarely cooled and indicates that the government will speed up the rural electrification program in milk-producing areas and encourage investment in cold chain infrastructure by milk marketing cooperatives and private investors through incentives such as tax exemptions on imported equipment. The government will also explore, through research, appropriate methods of preserving bulk unprocessed milk. Producer groups will be supported with milk quality testing facilities including lactoscans.

Milk packaging is a critical component in milk marketing and quality control but there are health and safety concerns. To address these concerns, the government will develop and adopt cost-effective milk packaging of acceptable standards. Health and milk safety issues will be addressed through a value chain approach.

Milk testing and quality control systems are critical components of a dairy value chain. Based on the policy, the government will ensure that dairy producers, processors and manufacturers have put in place quality control and assurance systems that conform to international standards. Such measures will include animal feed and input quality control, provision of incentives for procurement and installation of milk testing equipment, stakeholder sensitization on the importance of safe use of antibiotics and other veterinary drugs, testing of milk and strict enforcement of quality standards.

The government will also invest in training programs on safe milk handling, public awareness campaigns on the dangers of drinking unprocessed milk and giving informal milk traders incentives for milk handling and setting up of a milk dealer certification system. On trade, the government will strengthen enforcement of rules and regulations for domestic and imported dairy products and enhance participation in the development and setting of international dairy standards. The government will further endeavour to achieve the export standards and avoid trade of sub-standard milk and milk products in the domestic market.

The policy recognizes that consumers in rural and urban areas have adopted several methods to ensure that milk remains safe and wholesome such as boiling and fermentation. It will seek to promote consumption of wholesome milk and encourage production of products that meet consumer tastes and preferences. To provide for market price stabilization and establishment of strategic reserves of milk, the government will promote processing of long-life milk products and encourage consumption of long-life milk through national campaigns.

Draft Reviewed National Livestock Development Policy (2019)

This policy addresses the challenges and shortcomings arising from the liberalization policies of the 1990s. It covers production, marketing, quality control, standards, consumer safety, consumption and promotion of dairy products. The policy is intended to provide a framework to guide the development of the livestock sector in Kenya, improve the livelihoods of actors in the dairy sector, contribute to food and nutrition security and improve livestock feed and rangeland resources. With regard to food safety, the policy will promote animal health and food safety to enable access to markets. A detailed description of the policy components is given in Table 2.

Table 2: Components of the Draft Reviewed National Livestock Development Policy (2019)

Component	Justification	Recommendations
Animal health and veterinary services	Animal diseases hinder the development of the livestock industry and pose a risk of transmission to humans through milk, meat and products therefrom. Efficient and reliable animal health services are crucial for a vibrant dairy industry.	Strengthen the veterinary department to control animal diseases through legislations and effective strategies and develop disease reporting systems.
Dairy feeds and feeding	The quality of feeds affects the quality of animal products. Low-quality feed has been a major constraint in the dairy industry.	Enforce feed quality and safety by promoting the production of oilseed crops, encouraging private milling of feed concentrates by cooperatives, encouraging the use of crop residues as feed to remove competition for energy sources between animals and humans, developing codes of practice for feed manufacturers, developing tools for industry self-monitoring and compliance and establishing a feed inspectorate agency.
Safety and quality of livestock products	Safety and quality of livestock products are compromised if good animal husbandry practices, good hygienic practices and good manufacturing practices are not observed.	Support training and supervision of service providers, enforce sanitary measures, support the development of codes of practice that conform to international standards, develop animal identification and traceability systems and support capacity building at all levels of the livestock value chain.

Kenya Veterinary Policy (2015)

The aim of this policy is to provide a roadmap for animal resources to address animal health and food safety. The policy provides for review and consolidation of existing laws and enactment of new ones for efficient governance of animal resources. Its key components are disease control, veterinary public health, food safety and animal feeds.

On disease control, it mandates the Director of Veterinary Services to confirm diseases and declare them notifiable. Further, the legislation provides for investigation and diagnosis of diseases, inspection of animals, approval of premises and processing facilities and enforcement of control measures.

On veterinary public health, the policy provides for inspection and certification of food of animal origin and approval of premises dealing with animal-source foods. The underlying principles are protection of human health from zoonotic diseases, observation of sanitary measures in the animal value chain (farm-to-fork continuum) and development of strategies to mitigate outbreaks of diseases with wildlife reservoirs.

Food safety is a priority to prevent contamination from farm to fork as the risk of food contamination has increased due to globalization of food trade and rapid urbanization which have led to long value chains with many actors. To protect human health, the government will develop and implement codes of practices for inspection, suitable protocols for total quality assurance of all foods of animal origin, regulations for food safety and defence, and platforms to manage zoonoses with stakeholder participation.

The policy recognizes that sub-standard animal feeds are a bottleneck to the development of the livestock sector. The priority is on ensuring quality feeds through regulation of production, composition and manufacturers of animal feeds. The government will support capacity building to ensure compliance with recommended sanitary measures including the use of identification and traceability systems that comply with international standards.

National Policy on Prevention and Containment of Antimicrobial Resistance

The policy covers the emergence of antimicrobial resistance from antimicrobial use in treatment of infectious diseases. The goal is to reduce the burden of antimicrobial resistance by prudent use of antimicrobial agents. It is envisaged that the goals will be achieved by improving awareness and understanding of antimicrobial resistance through education and communication; carrying out surveillance and research on antimicrobial resistance; reducing infections by adopting sanitation and hygiene; advocating for proper use of antimicrobials in human and animals; developing policies, guidelines and strategies for optimal use of antimicrobials and enforcing policies and legislations on prudent use of antimicrobial agents.

Antimicrobial surveillance is one of the critical components of the response to antimicrobial resistance. It is also one of the five strategic priorities of the Global Action Plan on Antimicrobial Resistance. Antimicrobial resistance surveillance systems are lacking in many low- and middle-income countries due to factors such as lack of guidelines in surveillance in plants and environment, robust systems for collecting and collating data, weak laboratory and communication infrastructure and lack of competent personnel. Kenya has an inter-agency coordinating group on antimicrobial resistance which has initiated discussions on the development of an appropriate surveillance system for the country. The sentinel surveillance system with a step-wise increase in numbers and scope is the most likely option.

Communication strategy on prevention and containment of antimicrobial resistance (2018–2022)

The strategy was developed to create awareness, influence behaviour and contain the emergence and spread of antimicrobial resistance. It provides guidelines for development of messages, choice of channels and feedback collection loops. The strategy observes that the emergence and spread of antimicrobial resistance is due to a lack of awareness and poor handling and dispensing of over-the-counter antimicrobials by human health and agriculture professionals. The strategy recommends building the capacity of these professionals with the relevant skills and knowledge to enable them to communicate the risks of antimicrobial resistance to the public, policymakers and others involved in the antimicrobial supply chain.

Economic recovery strategy for wealth and employment creation (2003–2007)

The aim of the strategy was to empower Kenyans and enable a democratic political atmosphere for them to engage in productive activities that improve their standards of living. It was developed under the Ministry of Planning and National Development. To improve performance of the food industry, the strategy proposed the following: (1) development of a policy on milk production, processing and marketing emphasizing health and safety standards; (2) development of milk handling facilities such as collection and cooling centres; (3) value-addition of milk; (4) establishment of abattoirs and meat processing facilities by the private sector and local authorities; (5) promotion of aquaculture to improve food and nutrition security; and (6) development of cooling plants and access roads to reduce post-harvest losses and achieve the required sanitary and health standards for the fishery sector. The strategy proposed to improve animal health delivery through mobile animal health clinics, screening units and disease surveillance, and strengthen disease control by partnering with regional animal health programs.

Kenya national dairy master plan

The national dairy master plan outlines strategies and action plans to increase efficiency and productivity in the dairy sector. The objectives of the dairy master plan are to formulate strategies and programs to develop the dairy industry and design a mechanism to implement, monitor and evaluate them; provide evidence to the government for increased budgetary allocation to the sector based on analysis and projections; provide a roadmap for public-private partnerships to increase private sector investment; develop a framework to implement interventions along the dairy value chain; and address cross-sectoral thematic issues relevant to dairy development.

The master plan is expected to transform the dairy sector into a sustainable industry for economic growth by improving productivity and competitiveness, enhancing livelihoods, increasing domestic consumption of milk and milk products, increasing regional and global export of dairy products, re-orienting milk processing towards long-life products and decentralizing dairy services.

A major constraint in milk marketing is the lack of milk coolers in rural areas coupled with unreliable supply of electricity. Even when electricity is available, its cost is prohibitive for small cooperative societies. The master plan proposes increased rural electrification and sustainable energy sources like mini-hydroelectric stations and wind and solar power.

Milk testing and quality control are essential for the development of a competitive dairy value chain. The high cost of milk testing equipment, inadequate skills on the use of the equipment, lack of capacity in milk quality management and institutional gaps present major hindrances to quality control and assurance. The level of hygiene in handling and storage of milk directly affects milk quality during transportation. Standards exist for milk sold in regional markets but the main challenge is weak enforcement.

Priority action is to strengthen regulatory service to ensure that dairy processors and manufacturers put in place quality testing and assurance systems that conform to national and international standards. These measures include provision of incentives, for milk testing equipment and installation, stakeholder sensitization on the importance of safe use of antibiotics and other veterinary drugs at farm level, training on milk testing and operation of testing equipment, and strict enforcement of quality standards for both raw and processed milk products.

Raw milk is preferred to processed milk as it is accessible, relatively cheaper and tastier and has a high butterfat content. It is also available in quantities that meet consumer needs. The dairy master plan notes that to increase the quantity of milk sold in the formal sector and improve value addition, the industry will need to promote the consumption of formally processed and packaged milk.

Agriculture and Rural Development Policy for the East African Community (November 2006)

One of the objectives of the East African Community is to achieve food and nutrition security by increasing output, quality and availability of food. In line with this objective, this policy aims to increase agricultural production, processing and marketing; develop regional referral laboratories for food quality assurance and certification and fish and fishery products; develop sanitary and phytosanitary measures for crop production; monitor animal pests and diseases and livestock products; develop standards for quality control and assurance of plant and animal products; and establish a mechanism for monitoring and surveillance of transboundary plant and animal diseases.

Food safety laws

The national legal system is important in food safety control. Food safety legislation covers the regulation of food control, food safety and food trade. It sets out the quality requirements meant to ensure that food is unadulterated and presented in a way that does not deceive consumers.

In many countries, including Kenya, food safety is governed by a set of laws and regulations aimed at ensuring adequate quality and safety of food, minimizing the risk of exposure to unsafe food and providing consumers with relevant food safety information. Table 3 summarizes the food laws in Kenya, the ministries and agencies responsible for their implementation, and the legal mandates of the relevant officers to ensure food safety.

Table 3: Review of the food laws in Kenya

Act and purpose of the Act	Lead ministry	Agency and actor	Specific food safety mandate	Relevant section and subsection
Public Health Act Chapter (Cap) 242, (enacted 38 of 1921, latest revision 21 of 2017) To make provision for securing and maintaining health	Ministry of Health	Central board of health constituted under Section 3 of the Act	Advise the minister on public health issues	Section 8
		Minister of Health	Gazette the board and board operation rules	
			Appoint committees and district boards	Section 7
			Appoint officers who have delegated powers	Section 9
			Handle matters related to food (anything other than water and drugs intended for food preparation)	Part X
		Medical Officer of Health	Inspect premises where animal-source foods are manufactured, prepared or kept to ensure they are vermin-proof; ensure alteration to buildings complies with standards and prosecute failure to comply	Section 127, subsections 1, 2 and 3; section 134 (a)
		Medical Officer of Health, Veterinary Officer, Sanitary Inspector, Meat Inspector or police officer of or above the rank of Inspector	Prohibit the sale of food that is unfit for human consumption (tainted, adulterated or diseased)	Section 131, subsection 1
		Medical Officer of Health or duly authorized person	Seize unwholesome food	Section 132 and 134 (b)
		Medical Officer of Health or duly authorized person	Dispose of unwholesome food	Section 132
		Minister of Health	Inspect animals intended for human consumption, dairy premises, slaughterhouses and food containers	Section 134 (a)
		Minister of Health	Ensure quality by fixing standards of milk and foods	Section 134 (c) and (l)
		Medical Officer of Health or, in the case of meat, a veterinary officer	Surveillance (collection and analysis of samples)	Section 134 (b) and (e)
			Maintain equipment and slaughterhouses	Section 134, h)
			Prohibit import or export of unwholesome food	Section 134 (i)
		Municipal councils (county governments)	Protect food, license food handlers, ensure animals are free of communicable diseases	Section 135
		Minister of Health	Delegate powers to other agencies e.g. counties	Section 135 (a)
Kenya Plant Health Inspectorate Service Act, 2011 (enacted 54 of 2012, latest revision 184 of 2016) To establish the Kenya Plant Health Inspectorate Service as a regulatory body for the protection of plants, seeds and plant varieties and agricultural produce	Ministry of Agriculture, Livestock and Fisheries	Kenya Plant Health Inspectorate Service established under Section 3	Functions dealing with plant and seed health	Section 6; Section 5 (a), (o)
Plant Protection Act, Cap 324 (enacted 24 of 1937, latest revision 17 of 1971) To make better provision for the prevention of introduction and spread of disease destructive to plants	Ministry of Agriculture, Livestock and Fisheries	Director of Agriculture; Revision of No. 54 of 2012 authority under the Kenya Plant Health Inspectorate Service	Make rules to prevent and control spread of plant pests and diseases. (Plant refers to any member of the vegetable kingdom whether dead or alive)	Section 3
			Inspect plants for pests and diseases before import or export	Section 8, subsection 2 (a)
			Disinfect or treat any plant infected by pests and disease	Section 8, subsection 2 (b)
			Authorize immediate destruction of infected plants	Section 8, subsection 2 (c)
			Authorize fumigation or disinfection of vehicles used for storage or transport of infected plants	Section 8, subsection 2 (d)
			Detain infected plants intended for imports or exports	Section 8 subsection 2 (f) and (g)
			Prosecute through courts in case of non-compliance	Section 9
			Prohibit movement of infected plants	Section 8 subsection 2(h)

<p>Agricultural Produce (Exports) Act, Cap 319 (enacted 44 of 1921, latest revision 365/1964)</p> <p>To provide for the grading and inspection of agricultural produce to be exported, and generally for the better regulation of the preparation and manufacture thereof</p>	Ministry of Agriculture, Livestock and Fisheries	Director of Agriculture	Inspect agricultural produce or product intended for export. Agricultural produce or product means meat or meat products, milk products, eggs or margarine or butter substitutes.	
		Director through duly appointed inspectors	Restrict export of agricultural product that has not been inspected or branded	Section 3
			Prohibit export of unsound produce (infected with disease, unfit for human consumption)	Section 4 subsection (1)
			Seize and destroy infected animals and agricultural produce intended for export	Section 5
			Register abattoirs and dairies (meat and milk products shall only be exported from registered abattoirs and dairies)	Section 6 subsections (1) and (2)
		Duly appointed inspectors	Inspect premises used for storage or processing of agricultural produce for export	Section 8
		Minister of Agriculture	Ensure quality by prescribing notices for the minimum standards of agricultural produce for export	Section 9 subsection (c)
<p>Food, Drugs and Chemical Substances Act, Cap 254 (enacted 8 of 1965 and latest revision 2 of 2002)</p> <p>To make provision for the prevention of adulteration of food, drugs and chemical substances and for matters incidental thereto and connected therewith</p>	Ministry of Health	Public Health (Standards) Board established by Section 27 of the Act	Declare adulteration of food, drugs and chemicals and the standards for preparation, storage and sale of food manufactured, sold or represented for use as food or drink for human consumption or chewing gum	Section 28
		Public Health (Standards) Board	Prohibit sale of food that is unfit for human consumption (unwholesome, adulterated, poisonous, harmful) or food not of the nature and quality demanded	Section 3 (a), (b), (c) and (d) and Section 6
			Enforce compliance with prescribed food standards	Section 5
			Prohibit preparation and sale of food under insanitary conditions	Section 7
			Inspect animals intended for meat to ensure fitness for human consumption and premises and carriers of food for compliance with prescribed standards	Section 28, Section 30 subsection 1 (a) and (b)
			Prosecute through courts in the event of failure to comply with the Act	Sections 4, 6, 7 and 30 subsection 2
			Delegate duties to other agencies such as counties	Section 32
			Demand particular food ingredients from people involved in production or import	Section 33 subsection 1 and 2 (b)
<p>Agricultural and Food Authority Act, 2013 (enacted 13 of 2013 latest revision 35 of 2016)</p> <p>To provide for the consolidation of laws on the regulation and promotion of agriculture generally, to provide for the establishment of the Agriculture and Food Authority, to make provision for the respective roles of the national and county governments in agriculture excluding livestock and related matters in furtherance of the relevant provisions of the Fourth Schedule to the Constitution and for connected purposes</p>	Ministry of Agriculture, Livestock and Fisheries	Agriculture and Food Authority Board; constituted under Section 3 of the Act	Administer the Crops Act 16 of 2013	Section 4 subsection (a)

Crops Act 16 of 2013 (enacted 16 of 2013, latest revision 7 of 2016) To provide for the growth and development of agricultural crops	Ministry of Agriculture, Livestock and Fisheries	Cabinet Secretary for Agriculture through the Agriculture and Food Authority Board	Delegate powers to county governments to develop crops and control plant diseases	Section 6 (b)
			Promote productivity and facilitate post-harvest services and technology	Section 13, (1)
			Prevent illegal manufacture of crop products from raw materials that do not meet prescribed standards	Section 19, subsections 1 and 2
			Establish subsidiary bodies (food security)	
			Control crop pests and diseases	Section 40 subsection 2 (e)
			Ensure quality through standards setting, testing and certification of seeds and planting materials	Section 40 subsection 2 (f)
			Ensure traceability of crops through blending, packaging and labelling	Section 40 subsection 2 (h)
			Ensure food safety through setting of rules for handling, transport, processing and marketing of crops	Section 40 subsection 2 (k)
Dairy Industry Act, Cap 336 (enacted 34 of 1958, latest revision 17 of 2006)	Ministry of Agriculture, Livestock and Fisheries	Cabinet Secretary for Agriculture through the Kenya Dairy Board; established under Section 4	Provide for the procedure of testing toxic crops	Section 40 subsection 2 (q)
			Improve efficiency of production, quality and marketing of dairy produce (milk, cream, butter, ghee, cheese and any other by product of milk)	Section 17
			Board appoints committees, employs staff	Section 15
			Make regulations governing the industry	Section 19
			Set minimum standards that dairy produce shall conform to (for imports and exports)	Section 19 (a)
			Prescribe handling, transport and storage of dairy produce intended for consumption and the manner in which produce shall be sold	Section 19 (c) and (i)
			Inspect dairy products to ensure they meet the quality standards	Section 19 (r) and (s)
Meat Control Act, Cap 356 (enacted 7 of 1972, latest revision 5 of 2007)	Ministry of Agriculture, Livestock and Fisheries	Cabinet Secretary through the Director of Veterinary Services	Surveillance (collect and test samples of dairy produce)	Section 19 (r)
			License, inspect and set standards for slaughterhouses and meat for local consumption and export	Section 3
			License and inspect slaughterhouses and premises where meat is processed for human consumption; license meat inspectors	Section 3, subsection 1 (a), (d) and (e)
			Make regulations (2002 import of meat and meat products regulations; 2010, 2012 local slaughterhouse regulations; 2011 local slaughterhouse licensing regulations; 2016 export slaughterhouse regulations)	Section 3
			Ensure quality through setting of standards for processing meat products and additives and storage and transport of meat and meat products	Section 3 subsection 1 (c) and (d)
			Surveillance (sample meat products and food additives)	Section 3 subsection 1 (d)
			Control import and export of meat	Section 3 subsection 1 (f)
Kenya Meat Commission Act, Cap 363 (enacted 3 of 1967, latest revision 17 of 2006)	Ministry of Agriculture, Livestock and Fisheries	Kenya Meat Commission established in Section 3 of the Act	Ensure meat is wholesome and fit for human consumption	Section 3 subsection 1 (i)
			Purchase slaughter stock (cattle, small stock, poultry), slaughter and market products and ensure cold chain for slaughter products	
Standards Act Cap 496 (enacted 17 of 1973, latest revision 7 of 2004)	Ministry of Trade	National standards council within the Kenya Bureau of Standards; established under section 3	Establish and maintain abattoirs and cold storage for meat, meat products and eggs	Section 9 subsection 1 (a)
			Promote standardization and provide for testing of products	Section 4
			Examine and test and sample commodities	Section 7 subsection 2 (a) and (b)
Animal Diseases Act, Cap 364 (enacted 4 of 1965, latest revision 12 of 2012)	Ministry of Agriculture, Livestock and Fisheries	Director of Veterinary Services	Inspect processes and manufacturing premises	Section 14
			Appoint inspectors	Section 3
			Declare quarantine	Sections 5, 6 and 7
			Prohibit import of animals, carcasses and meat capable of causing infection	Section 8 subsection (1)
			Isolate infected animals intended for slaughter; bury or destroy carcasses	Section 9 subsection (b) and (c)
			Slaughter and dispose of carcasses from animals declared infected, with compensation	Section 10, 11, and 12
			Examine animals, carcasses, meat and animal products for evidence of notifiable diseases	Section 14 subsection 1 (ii)

National Cereals and Produce Board Act, Cap 338 (enacted 7 of 1985, latest revision 17 of 2006)	Ministry of Agriculture, Livestock and Fisheries	National Cereals and Produce Board established under Section 3 of the Act	Advise the minister on best practices for handling, sale, export, import and production of maize and wheat	Section 4 subsection 1 (a), (b) and (c)
		Agents appointed by the Managing Director	Act on behalf of the Managing Director who has delegated powers of the board	Section 12
		Agent or police officer of the rank of Inspector	Inspect premises used by producers, traders and millers of agricultural produce	Section 26 subsection (1)
			Surveillance (sampling of maize and wheat)	Section 26 subsection 1 (b)
			Seize unwholesome maize, wheat or scheduled agricultural produce	Section 26 subsection 1 (c)
Fertilizers and Animal Foodstuffs Act, Cap 345 (enacted 23 of 1962, latest revision 20 of 2015)	Ministry of Agriculture, Livestock and Fisheries	Fertilizers and Animal Foodstuffs Board established under Section 2A of the Act	Regulate import, manufacture and sale of fertilizers and animal feed	Section 2 (b)
		Board	Delegate powers to committee, member, employee or agent	Section 2 (1)
		Committee, member, employee or agent	Restrict import, manufacture and sale of animal foodstuffs that do not conform to the required standards	Section 3 subsection (2)
			Prohibit manufacture animal foodstuffs with bone without sterilization	Section 4
		Cabinet Secretary for Agriculture	On advice of the board, appoint inspectors through gazette notice	Section 8
			Seize animal foodstuffs that do not conform to the required standards	Section 9 subsection 1 (b)
			Inspect premises and vehicles used for manufacturing and transport of animal foodstuffs	Section 9 subsection 1 (a)
			Surveillance (sampling and analysis) to ensure standards are met; analyse samples on request by the purchaser	Section 9 subsection 1 (c), section 10
			Prosecute through courts any person selling deleterious ingredients in fertilizer and animal foodstuffs	Section 12 subsection (1)
Trade Description Act, Cap 505 (last reviewed 2003) The Act deals with unfair practices. In regard to food safety, this Act is applied in cases of food fraud and defence	Ministry of Commerce	Cabinet Secretary responsible for commerce	Prohibit false trade descriptions	Section 3
			Prohibit false indications of price	Section 4
			Prohibit import of goods with false descriptions of origin	Section 7
			Appoint inspectors under Section 54 of the Weights and Measures Act, Cap 513	Section 21
			Enter and inspect premises and seize and detain goods and documents	Section 21
Cooperative Act, No 12 of 1997. Latest Amended 2017 Registration of societies to promote the welfare and economic interests of their members and in cooperate cooperative principles in their by-laws.	Ministry of Cooperative	Cabinet Secretary responsible for cooperatives	Run societies by keeping and auditing accounts (dairy cooperatives are governed under this Act)	Section 25
Livestock and Livestock Products Marketing Board Bill 2019 (pending) Establishes a livestock and livestock products marketing promotion board	Ministry of Agriculture, Livestock and Fisheries	Cabinet Secretary for Agriculture	Empower the board to operationalize the Act	Sections 3, 4, 6 to 20
			Promote the adoption of standards and best practices in livestock production and processing that support marketing of livestock and livestock products	Clause 5 (i)

Kenya Food and Drugs Authority Bill, 2019 (pending)	Ministry of Health	Kenya Food and Drugs Authority to be established under Section 4 of the Act	Regulate and monitor the manufacture, processing, distribution, warehousing, wholesale and import of food in Kenya	Section 22 subsection (1)
			Set standards and guidelines to regulate food products and food additives	Section 22 subsections 2 (a) and (d); Section 26
			Surveillance (collect, analyse and summarize results related to contaminants in foods and other risks)	Section 22 subsections 2 c(i) and (iii)
			Promote awareness on food safety and food standards	Section 22 subsection 2 (m)
			Provide training on food safety and standards for persons intending to do food business	Section 22 subsection 2 (l)
			Examine and seize food suspected to be unfit for human consumption	Section 30, subsections (1), (2) and (5)
			Destroy and dispose of food unfit for human consumption	Section 30 subsection (3)
			Establish reporting systems for adverse reactions to foods	Section 22 subsection (f)
			Prohibit sale of unwholesome, poisonous or adulterated food	Section 23 subsections 1 (a), (b), (d), (e); Section 27, 28

Analysis of redundancies

The multiplicity of agencies dealing with food safety as shown in Table 3 implies duplication of mandates by several of them. This causes duplication in execution of responsibilities and results in failure. Table 4 gives the specific areas of food law where food safety mandates are duplicated.

Table 4: Duplication of food safety mandates among regulatory agencies in Kenyan food law

Food safety issue	Law	Agency or actor
Inspection of premises used for storage, manufacture or preparation of foodstuffs	Public Health Act (Cap 242)	Medical Officer of Health
	Food, Drugs and Chemical Substances Act (Cap 254)	Public Health (Standards) Board
	Agricultural Produce (Exports) Act (Cap 319)	Inspector appointed by the Director of Agriculture
Prohibition of sale of food that is not fit for human consumption	Public Health Act (Cap 242)	Medical Officer of Health, Veterinary Officer, Sanitary Inspector, Meat Inspector or police officer of or above the rank of Inspector
	Kenya Food and Drugs Authority Bill (2019) (pending)	Kenya Food and Drugs Authority to be established
Seizure of unwholesome food	Public Health Act (Cap 242)	Medical Officer of Health
	Kenya Food and Drugs Authority Bill (2019) (pending)	Kenya Food and Drugs Authority to be established
	Meat Control Act (Cap 356)	Cabinet Secretary through the Director of Veterinary Services
Inspection of animals intended for human consumption to ascertain their fitness for slaughter	Public Health Act (Cap 242)	Medical Officer of Health
	Food, Drugs and Chemical Substance Act (Cap 254)	Public Health (Standards) Board
	Animal Diseases Act (Cap 364)	Director of Veterinary Services
Registration and inspection of abattoirs and slaughterhouses	Agricultural Produce (Exports) Act (Cap 319)	Director of Agriculture through appointed inspectors
	Meat Control Act (Cap 356)	Cabinet Secretary through the Director of Veterinary Services
	Public Health Act (Cap 242)	Minister for Health
Setting of quality standards for dairy produce	Public Health Act (Cap 242)	Minister for Health
	Dairy Industry Act (Cap 336)	Cabinet Secretary for Agriculture through the Kenya Dairy Board

Pending bills and regulations

Animal Disease Health Bill (2019)

The purpose of this Bill is to achieve efficient control and eventual eradication of animal diseases particularly transboundary animal diseases, trade-sensitive diseases and zoonotic diseases; control livestock movement within and across counties and internationally; achieve efficient control of vectors of veterinary importance; and provide for a simple, reliable, verifiable, affordable and effective system of animal identification, registration and traceability; improvement of veterinary clinical services; zoological services of relevance to veterinary services; efficient, reliable and accessible veterinary laboratory services; animal health insurance; animal census; and efficient and effective veterinary governance in Kenya.

The Director General of Veterinary Services will execute the mandates of the proposed Act or delegate such powers and functions in writing to the County Director of Veterinary Services or an officer of the national veterinary services and any other authorized person (Section 10). The Director General has powers to appoint inspectors (Section 20) whose duty is to ensure that persons comply with the Act, determine whether a person may have contravened the Act, assess and facilitate prosecution of offences committed under the Act and perform such other functions as shall be assigned to them by the respective appointing authority or regulations under the Act (Section 22).

The inspectors have varied powers as outlined in Sections 23 and 24 that allow them to detain, seize, analyse, isolate, dispose of and prevent import or export of animals, animal products or disease agents. Among its many parts, the Act has sections that deal with disease prevention, surveillance and control (Section 43 to 69), regulation of animal feeds (Section 87 to 90) and animal identification and traceability (Sections 99 and 100). These sections would help to promote the safety of animal-source foods which contribute 168 disability-adjusted life years per 100,000 population (95% uncertainty interval 137–219), which is approximately 35% of the estimated total burden of foodborne disease globally of 600 million cases and 420,000 deaths (WHO 2015).

Veterinary Public Health Bill (2019)

This Bill covers food of animal origin, non-food products of animal origin and feed and fodder for animals. It addresses several issues including ensuring the safety of food of animal origin, construction and control of slaughterhouses and establishments where food of animal origin is processed, control of non-food animal products, and marketing and trade in animal products and food of animal origin. The Director General of Veterinary Services would set up food safety requirements for animals and animal-source foods including provisions for construction, maintenance and operation of slaughterhouses (Section 11 to 13); food safety standards, in collaboration with the Kenya Bureau of Standards (Section 16); feed safety requirements (Section 20 to 26); a rapid alert system to deal with food safety emergencies and response (Section 34 to 37) and traceability and recall of food and feeds (Sections 61 and 62). Food business operators will be required to ensure their businesses meet the safety requirements (Section 50).

Dairy Industry Regulations (2019)

Through the Kenya Dairy Board, the Ministry of Agriculture, Livestock, Fisheries and Irrigation has drafted regulations which, at the time of writing this report, are ready to be taken for public participation. The regulations are meant to develop the dairy industry. There are eight different regulations: food safety; import and export; raw milk sales; traceability and recall; inspections; regulatory permits; levies and returns; and reporting. The central theme of the regulations is to help produce, transport and market safe dairy products of benefit to producers, dairy business operators and consumers.

Breast Milk Substitutes (General) Regulations (2019)

These regulations are in pursuant of the Breast Milk Substitutes (Regulation and Control) Act 34 of 2012. Of importance to food safety are Section 4 which deals with safe production, preparation and packaging of the product, Section 5 (sampling and testing), Section 7 (importation) and Section 10 (issuance of a certificate of analysis). The actions are aimed at the meeting standards for food safety. In addition to the above, the Ministry of Health has requested for a stakeholders' memorandum on regulation of food safety (in 2019) covering advertisement of food safety inputs, draft National Food Safety Policy (2013) and Food, Drugs and Chemical Substances Act Cap 254 subsidiary legislations.

Food inspection services

Food inspection services are meant to achieve a number of objectives that include ensuring food handlers comply with food laws and regulations; seizing, detaining and disposing of food suspected to be unfit for human consumption; and inspecting premises to ensure they comply with food safety construction specifications.

Table 3 shows that a number of food laws give power to appoint inspectors who are mandated to inspect, seize, detain, sample and dispose of food of unquestionable quality and inspect premises and persons (Public Health Act, Cap 242, Sections 127, 132 and 134; Kenya Plant Health Inspectorate Service Act, No. 54 of 2012; Plant Protection Act, Cap 324 Sections 2 and 8; Agriculture Produce Act, Cap 319 Sections 4, 5 and 8; Food and Drugs and Chemical Substances Act, Cap 254 Sections 5, 7, 28 and 30; Dairy Industry Act, Cap 336 Section 19; Meat Control Act Cap 356, Section 3; Standards Act, Cap 496 Sections 7 and 14; and Animal Diseases Act, Cap 364 Sections 3,8 and 9).

Laboratory and surveillance services

Kenya has several national laboratories which perform different tests to support food safety. These include the National Public Health Laboratory, the Government Chemist Laboratory, the Kenya Plant Health Inspectorate Service laboratories, the Kenya Bureau of Standards laboratories and the Veterinary Investigation Laboratory. In addition to the public laboratories, many competent private laboratories exist and the government can call on them for help to analyse samples.

National Public Health Laboratory

This is a reference laboratory that receives samples from counties and from work conducted by the laboratory. The Food Safety and Nutrition Reference Laboratory is one of the four units in the Division of National Public Health in the Department of Preventive and Promotive Health within the Ministry of Health. The main role of the laboratory is to conduct tests on food, water and other relevant specimens. The main purpose is prevention, diagnosis and management of diseases of public health importance; enhancing compliance of food and water with safety and nutritional standards; providing support in response to disease outbreaks; monitoring and surveillance of food and water for public safety; and providing support to multi-sectoral public health programs. The laboratory tests for levels of micronutrients and macronutrients (minerals, vitamins, proteins, fats and carbohydrates) in food, toxic chemicals in food and drinking water, aflatoxins and heavy metals in food and general quality of food and water. The laboratory is working towards ISO 17025 accreditation.

Government Chemist Laboratory

This laboratory is a division of the Government Chemist which carries out chemical analysis of water, foods, drugs and chemical substances for quality and conformity to national and international standards in fitness for human consumption; contaminants like methanol, pesticides and metals in foods and drinks; aflatoxins in cereals and cereal products; and identification of unknown chemical substances. For water analysis, the focus is on assessing fitness for human consumption and other uses like irrigation, and quality of wastewater before being discharged into rivers, public sewers and the general environment.

Kenya Bureau of Standards laboratory

The microbiology laboratory of Kenya Bureau of Standards analyses food products, water, environmental samples, cosmetics and antimicrobial agents. The laboratory has been accredited since 2002 and is manned by qualified staff with qualifications ranging from diploma and higher diploma to bachelor's and master's degrees in laboratory technology. The Kenya Bureau of Standards has a surveillance division that ensures that products in the Kenyan market comply with the requirements set out in the approved specifications and do not endanger health, safety or the environment. Surveillance activities include compliance assessment, investigation of complaints related to quality and counterfeiting, creating awareness on product quality and working in collaboration with industry to conduct product performance testing.

Kenya Plant Health Inspectorate Service

This organization has two laboratories that address food safety issues: a mycology laboratory that diagnoses plant fungal pathogens (some of which are important for food safety like *Aspergillus* and *Fusarium* spp.) and a food microbiology laboratory that analyses microorganisms in food and water (*E. coli*, *Salmonella* and *Staphylococcus aureus*). The organic chemistry laboratory tests for mycotoxins in cereals and groundnuts while

the molecular biology laboratory supports the mycology and food microbiology laboratories by using molecular techniques in diagnosis and confirmation of results.

Veterinary Investigation Laboratory

This laboratory consists of a central investigation laboratory and six regional laboratories in Eldoret, Garissa, Karatina, Kericho, Mariakani and Nakuru. The functions of the laboratories are to safeguard human health, support animal health and productivity as it relates to food security, ensure safety and trade, undertake prompt disease diagnosis, investigate outbreaks, and contribute to quality control of acaricides, vaccines, drugs and animal feed. The laboratories are headed and operated by qualified veterinarians who are supported by a team of laboratory technicians.

Kenya Dairy Board National Laboratory

The laboratory has been constructed and about to be commissioned. Its responsibilities will be to offer services to assist the Kenya Dairy Board in regulating, promoting and developing dairy industry through assurance of safe milk. The laboratory will be able to carry out microbiological, chemical and toxicological analysis related to milk.

Information, education, communication and training

Information on food safety is rarely given to consumers except in cases of outbreaks. Before the enactment of the Consumer Protection Act (2012), consumer rights were scattered in a number of legislations including the Trade Descriptions Act; the Standards Act; the Weights and Measures Act; the Restrictive Trade Practices, Monopolies and Price Control Act (now the Competition Act); the Foods, Drugs and Chemical Substances Act; the Pharmacy and Poisons Act; the Public Health Act and the Fertilizers and Animal Foodstuffs Act.

Consumer education on food safety issues is lacking despite having an institution (Kenya Consumer Protection Advisory Committee) formed under Section 89 of the Consumer Protection Act (2012) to, among other functions, promote or participate in consumer education programs, locally and elsewhere, and disseminate consumer issues with a view to proposing corrective measures (Section 90 [d]).

Training is essential in developing the skills and resources to deal with food safety especially in the informal markets that have little or no regulatory enforcement. Several universities in Kenya teach courses with food safety relevance, but few have a program or course on food safety (Figure 1). It is important that food safety is taught at all levels of education to instil a food safety culture in the Kenyan population. Equally, the government should consider establishing a Kenya Food Safety Authority to oversee the coordination and enforcement of the various food safety laws.

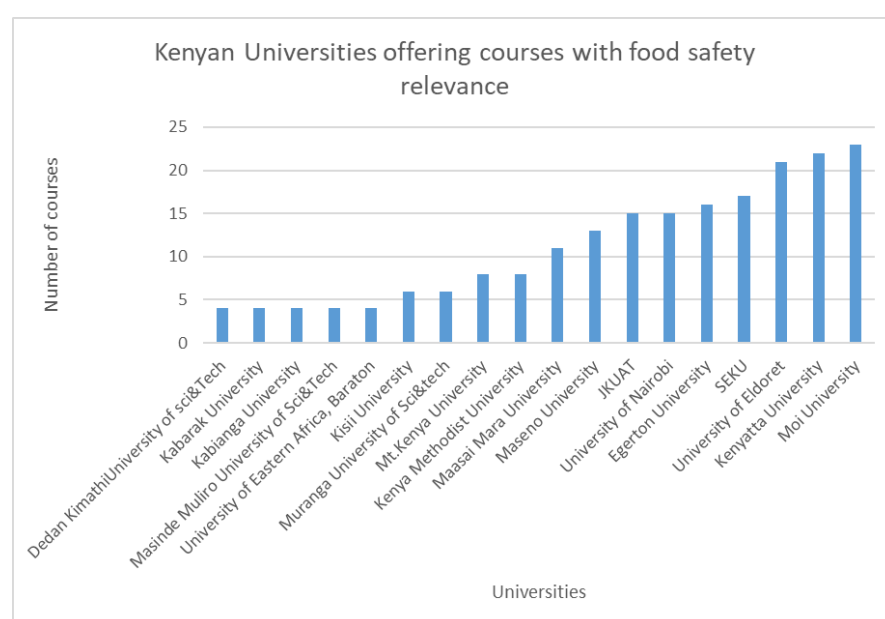


Figure 1: Universities in Kenya offering courses with food safety relevance at various levels (certificate, diploma, bachelor's, master's and PhD).

References

- Agricultural Produce (Export) Act, Cap 319.
<http://kenyalaw.org:8181/exist/kenyalex/actview.xql?actid=CAP.%20319>
- Agriculture and Food Authority Act No 13 of 2013.
<http://kenyalaw.org:8181/exist/kenyalex/actview.xql?actid=No.%2013%20of%202013>
- Agriculture and Rural Development Strategy for East African Community 2006. [http://www.eac-quality.net/fileadmin/eac_quality/user_documents/3_pdf/Agriculture and Rural Development Strategy.pdf](http://www.eac-quality.net/fileadmin/eac_quality/user_documents/3_pdf/Agriculture_and_Rural_Development_Strategy.pdf)
- Animal Diseases Act, Cap 364 <http://kenyalaw.org:8181/exist/kenyalex/actview.xql?actid=CAP.%20364>
- Communication strategy on prevention and containment of antimicrobial resistance 2018
<http://www.kilimo.go.ke/wp-content/uploads/2019/04/AMR-COMMUNICATION-STRATEGY-final-with-SIGNATURES.pdf>
- Cooperative Societies Act, No. 12 of 1997.
<http://kenyalaw.org:8181/exist/kenyalex/actview.xql?actid=No.%2012%20of%201997>
- Crops Act of 2013. <http://kenyalaw.org:8181/exist/kenyalex/actview.xql?actid=No.%2016%20of%202013>
- Dairy Industry Act, Cap 336. <http://kenyalaw.org:8181/exist/kenyalex/actview.xql?actid=CAP.%20336>
- Draft National Livestock Policy of 2019 <http://www.kilimo.go.ke/wp-content/uploads/2019/02/Draft-reviewed-National-Livestock-Policy-February-2019.pdf>
- Economic Recovery Strategy for Wealth and Employment Creation 2003-07.
<http://siteresources.worldbank.org/KENYAEXTN/Resources/ERS.pdf>
- Environmental Management and Coordination Act, No. 8 of 1999.
<http://kenyalaw.org:8181/exist/kenyalex/actview.xql?actid=No.%208%20of%201999>
- FAO. 2000. *Agreement on the application of sanitary and phytosanitary measures and agreement on technical barriers to trade*. Module 7: National food control systems: Components and operation.
- FAO/WHO. 2003. *Assuring food safety and quality: Guidelines for strengthening national food control systems*. Food and Nutrition Paper 76. <http://www.fao.org/3/a-y8705e.pdf>
- Fertilizers and Animal Feedstuffs Act, Cap 345.
<http://kenyalaw.org:8181/exist/kenyalex/actview.xql?actid=CAP.%20345>
- Food, Drugs and Chemical Substances Act, Cap 242.
<http://kenyalaw.org:8181/exist/kenyalex/actview.xql?actid=CAP.%20254>
- Jaffee, S., Henson, S., Unnevehr, L., Grace, D. and Cassou, E. 2019. *The safe food imperative: Accelerating progress in low and middle-income countries*. Washington, DC: World Bank.
- Kenya Foods and Drugs Authority Bill 2019.
http://kenyalaw.org/kl/fileadmin/pdfdownloads/bills/2019/KenyaFoodandDrugsAuthorityBill_2019.PDF
- Kenya Meat Commission Act, Cap 363.
<http://kenyalaw.org:8181/exist/kenyalex/actview.xql?actid=CAP.%20363>
- Kenya Plant Health Inspectorate Services Act, No. 54 of 2012.
<http://kenyalaw.org:8181/exist/kenyalex/actview.xql?actid=No.%2054%20of%202012>
- Kenya Veterinary Policy 2015, <https://www.kenyamarkets.org/wp-content/uploads/2016/06/Kenya-Veterinary-Policy-January-2015-Draft.pdf>
- Livestock and Livestock Products Marketing Board Bill 2019.
http://kenyalaw.org/kl/fileadmin/pdfdownloads/bills/2019/TheLivestockandLivestockProductsMarketingBoardBill_2019.pdf
- Meat Control Act, Cap 356. <http://kenyalaw.org:8181/exist/kenyalex/actview.xql?actid=CAP.%20356>
- National Cereals and Produce Board Act, Cap 338.
<http://kenyalaw.org:8181/exist/kenyalex/actview.xql?actid=CAP.%20338>
- National Dairy Development Policy 2013. <https://www.kdb.go.ke/wp-content/uploads/2019/06/National-Dairy-Development-Plan-Sessional-Paper-No-5-of-2013.pdf>
- National Dairy Master Plan 2010. <https://docplayer.net/40370566-Republic-of-kenya-kenya-national-dairy-master-plan.html>

National Food and Nutritional Security Policy 2011.

<https://extranet.who.int/nutrition/gina/sites/default/files/KEN%202011%20National%20Food%20and%20Nutrition%20Security%20Policy%5B1%5D.pdf>

National Food Safety Policy 2013 <http://www.kilimo.go.ke/wp-content/uploads/2019/09/The-National-Food-Safety-Policy.pdf>

National Policy on Prevention and Containment of Antimicrobial Resistance 2018 <http://www.health.go.ke/wp-content/uploads/2017/04/Kenya-AMR-Containment-Policy- Final April.pdf>

Plant Protection Act, Cap 324. <http://kenyalaw.org:8181/exist/kenyalex/actview.xql?actid=CAP.%20324>

Public Health Act, Cap 242. <http://kenyalaw.org:8181/exist/kenyalex/actview.xql?actid=CAP.%20242>

Standards Act, Cap 496. <http://kenyalaw.org:8181/exist/kenyalex/actview.xql?actid=CAP.%20496>

Trade Descriptions Act, Cap 505. <http://kenyalaw.org:8181/exist/kenyalex/actview.xql?actid=CAP.%20505>